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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
BELLINGER, JASON R	

ART UNIT	PAPER NUMBER
3617	

DATE MAILED: 04/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/022,669	KRAMPERA, JIRI	
	Examiner	Art Unit	
	Jason R Bellinger	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 December 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Allowable Subject Matter

1. The indicated allowability of claim 2 is withdrawn in view of the newly discovered reference(s) to Dietrich ('414). Rejections based on the newly cited reference(s) follow.

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A (1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

References EP 0,494,277 and JP 3,111,074 referred to in the specification, but not provided, have not been considered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the center plane of the anchoring points of the spokes in the rim being laterally displaced from the center plane of the rim, as set forth in claim 11, must be shown or the feature(s) canceled from the claim(s). Furthermore, the spokes being mounted in different combinations of directions to the hub flanges, as set forth in claim 12, must be shown or the feature(s) canceled from the claim(s). Furthermore, the hub and/or rim having a sticker thereon to indicate

the arrangement of the spokes, as set forth in claim 14, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The substitute specification filed 6 June 2003 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: paragraphs 62-95 of the clean copy do not correspond to paragraphs 62-99 of the marked-up copy. It is unclear which version of the substitute specification is correct.

4. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

5. The disclosure is objected to because of the following informalities: The section titled "The Future", beginning on page 22 and ending on page 23 should be deleted from the specification due to the fact that it contains only speculation on future events and therefore does not further the description and/or prosecution of the invention.

Furthermore, this section of the specification should be removed due to the fact that it makes reference to claims 1 and 17. Specific reference to the claims should not be made in the specification.

Appropriate correction is required.

Claim Objections

6. Claims 2 and 11 are objected to because of the following informalities: The term "the" should be removed prior to the term "ratio" in line 3 of claim 2 for grammatical clarity.

It is believed that the term "rim" in the phrase "center plane (M) of the rim" should be replaced with the term --hub-- in line 3 of claim 11, due to the fact that the drawings show the spokes being anchored at the center plane of the rim, with the center plane of the rim being laterally offset from the center plane of the hub.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.**

8. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 is indefinite due to the fact that the phrase "can be formed" makes it unclear whether or not the spokes are mounted in different combinations of directions.

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1-13, 15-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dietrich ('414) in view of Le June. Dietrich shows an asymmetric bicycle wheel having two sides with a hub 12 connected by means of tensioned spokes 22 to a ring-shaped rim (not shown, but well known in the art). The hub 12 includes a pair of hub flanges (14 & 16). The spokes 22 would be connected to the rim at anchoring points. A first group of spokes 22 extend from hub flange 14 towards the rim on a first side of the center plane FMP of the hub 12, while a second group of spokes 22

extend from hub flange 16 towards the rim on the second side of the center plane FMP of the hub 12. The sum of the tension of the first group of spokes 22 (at flange 14) is greater than the sum of the tensions of the second group of spokes 22 (at flange 16).

As best understood, the anchoring points (indicated by RMP) for the spokes 22 in the rim are laterally displaced from the center plane of the hub FMP.

The hub flanges (14 & 16) are "conventional" flanges with spoke holes that run parallel to the axis of the wheel. The spokes 22 include bent ends 32 with a spoke head 24, so that the spokes 22 are inserted into the hub flange (14 & 16) on only one side of the flange (14 & 16). The wheel is an asymmetric rear wheel.

Dietrich does not disclose the distance between the center planes of the hub flanges being at least 58mm. It is well known in the art to create bicycle wheel hubs having dimensions suitable to function properly (i.e. be large enough to structurally meet all physical load bearing requirements) while remaining as light as possible. Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the bicycle wheel of Dietrich with a wheel hub having suitable dimensions, such as a flange to flange distance of at least 58mm, to allow the hub to be light weight and yet structurally sound.

While not specifically stated, the ratio of the number of spokes 22 of the first group (at flange 14) to the number of spokes 22 of the second group (at flange 16) diverges from zero to plus or minus fifty percent from the ratio of dimensional values c:d. Whereby, c is measured between the radial center plane of the axes of the spokes

of the second group (at flange 16) anchored in the hub 12 in locations where the spokes 22 leave the hub 12 and just begin to extend towards the rim, and the radial center plane RMP of the rim, where all of the spokes 22 are anchored in the rim; and d is the analogue value to c on the first side of the center plane RMP of the rim with regard to the first group of spokes 22 (at flange 14).

The ratio of the average tension of the first group of spokes (at flange 14) to the second group of spokes (at flange 16) diverges from zero to plus or minus fifty percent from the ratio 1:1, and is generally at the ratio of 1:1.

Both of the above conditions must be true for the wheel of Dietrich to be properly balanced and function properly due to the fact that a wheel with unbalanced average spoke tensions would fail during operation, since the spokes would warp in the direction of the higher tension, thus ruining the wheel.

Dietrich does not show and asymmetrically spoked wheel with the ratio of spokes that receive the higher tensile load with respect to the spokes that receive a lower tensile load being 2:1 or 3:1 or 5:2 or 7:4 or 5:3 or 3:2 or 4:3. In Figure 1, Le June shows an asymmetrically spoked wheel wherein the ratio of a first group of spokes 10, which receive a higher tensile load, with respect to a second group of spokes 8, which receive a lower tensile load, is 2:1. In Figure 5, Le June teaches the use of an asymmetrically spoked wheel wherein the ratio of spokes 10', which receive the higher tensile load, with respect to spokes 8', which receive a lower tensile load, is 5:2 or 5:3.

The number of spokes 10 in the first group is greater than the number of spokes 8 in the second group.

Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the asymmetric wheel of Dietrich with differing ratios of higher to lower tensile loaded spokes (such as 2:1, 3:1, 5:2, 7:4, 5:3, 4:3, etc) as a matter of design choice, depending on the overall weight of the wheel desired (less spokes equal less weight), and the type of application the wheel will be used in (road racing, mountain racing, etc).

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dietrich ('414) in view of Le June as applied to claims 1-13, 15-16, and 18 above, and further in view of Miles et al. Dietrich as modified by Le June does not show a bicycle wheel having a sticker on either the hub or rim with suitable text thereon for drawing attention to the wheel.

Miles et al teaches the use of an identification system that comprises a sticker that may have any suitable indicia thereon for drawing attention to a wheel. Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the asymmetrically spoked bicycle wheel of Dietrich as modified by Le June with an attention-drawing sticker for the purpose of providing a means of identification/advertisement/instruction/etc on the wheel, and thus enhancing its visual appeal.

Response to Arguments

12. Applicant's arguments with respect to claims 1-16 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered to show asymmetrically spoked wheels having more spokes on one side of the hub than the other side. For example, Moyer shows a wheel of the type described above.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R Bellinger whose telephone number is 703-308-6298. The examiner can normally be reached on Mon - Thurs (9:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason R Bellinger
Examiner
Art Unit 3617

jrb

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